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Claim 1. (currently amended) Process for the separation from a non-aqueous solvent of a solid substance which is present in said non-aqueous solvent in dissolved form, colloidal form, or in both of such forms, without changing the molecular weight of said substance, which comprises

passing said non-aqueous solvent through a membrane having:

a hydrophobic coating formed by reaction of the membrane surface with a silane of the formula $R_1R_2R_3R_4Si$ wherein at least one but at most three of the groups R_1 to R_4 are a hydrolyzable group selected from the group consisting of $-Cl$, $-OCH_3$ and $-O-CH_2-CH_3$ or at least one but at most three of the groups R_1 to R_4 are a nonhydrolyzable group selected from the group consisting of alkyl groups and phenyl groups, or at least one of the groups R_1 to R_4 is a hydrolyzable group selected from the group consisting of $-Cl$, $-OCH_3$ and $-O-CH_2-CH_3$ and at least one of the groups R_1 to R_4 is a nonhydrolyzable group selected from the group consisting of alkyl groups and phenyl groups,

and having a mean pore diameter of 2 nm to 5 nm, and

wherein the membrane is an asymmetric, porous ceramic membrane, comprising at least three ceramic layers, each of which has a pore size different from the other two layers, and

wherein the hydrophobically coated membrane has a retention of less than 1000 g/mol.

Claim 2. (previously presented) Process according to Claim 1, wherein said solid substance is a catalyst.

Claim 3 (cancelled).

Claim 4. (cancelled)

Claim 5. (cancelled)

Claim 6. (currently amended) Process according to claim ~~5~~ 1, wherein said ceramic membrane is formed of Al_2O_3 , TiO_2 , ZrO_2 , SiO_2 or a mixture of two or more of said oxides

Claim 7. (previously presented) Process according to Claim 1, wherein the mean pore diameter of the membrane is not more than 20 nm.

Claim 8. (previously presented) Process according to Claim 7, wherein said mean pore diameter is from 2 nm to 10 nm.

Claim 9. (cancelled)

Claim 10. (previously presented) Process according to Claim 1, wherein said non-aqueous solvent is selected from the group consisting of alcohols, ethers, aromatic hydrocarbons, and optionally halogenated aliphatic hydrocarbons.

Claim 11. (previously presented) Process according to Claim 10, wherein said alcohols are methanol or ethanol, said ethers are tetrahydrofuran, said aromatic hydrocarbons are chlorobenzene or toluene and said optionally halogenated aliphatic hydrocarbons are dichloromethane.

Claim 12. (previously presented). Process according to Claim 2, wherein said catalyst is selected from the group consisting of the organometallic complex compounds, ligands of organometallic complex compounds and complex compounds of elements of group IVA, VA, VIA, VIIA, VIIIA or IB of the Periodic Table of the Elements.

Claim 13. (previously presented) Process according to Claim 12, wherein said catalysts are selected from the group consisting of complex compounds of

manganese, iron, cobalt, nickel, palladium, platinum, ruthenium, rhodium or iridium.

Claim 14. (previously presented) Process according to Claim 13, wherein said complex compounds are selected from the group consisting of Ru-BINAP, Pd-BINAP, Rh-EtDUPHOS and complex compounds of triphenylphosphine with palladium or rhodium.

Claim 15. (previously presented) Process according to Claim 1, wherein said separation is carried out at a temperature of -20°C to 200°C.

Claim 16 (previously presented). Process according to Claim 15, wherein said temperature is 0°C to 150°C.

Claim 17. (previously presented). Process according to Claim 1, wherein said process is conducted at a transmembrane pressure of from 2 000 to 40 000 hPa.